

REMARKS

Applicant wishes to thank the Examiner for reviewing the present application.

Claims 1-3, 5-12 and 14-18 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Blass (US 6,638,025) in view of Batchelder (US 6,390,780). Applicant respectfully traverses the rejections as follows.

As noted in Applicant's previous response, claim 1 requires, in part, a: "control circuit being located in a control housing secured to said casing and having an inwardly directed surface extending across an aperture in said casing to seal said aperture, a sensor assembly located on said surface and operatively associated with said rotating group to sense said parameter."

As discussed in the present application on page 2, paragraph [0007], to achieve a compact size and to simplify the control implementation it is desirable to locate the controller as close as possible to the rotating components of the hydraulic machine. However, the environment of the rotating components is relatively hostile and may lead to premature failure of the controller as well as lead to erratic behavior.

To overcome these drawbacks, claim 1 recites that the control circuit is located in a control housing separate from the rotating component so that, e.g. the control board and associated electric circuit is not subject to the hydraulic fluid that might adversely affect their operation (see page 13, paragraph [0074]).

The Examiner acknowledges that Blass does not disclose a control circuit located in a control housing secured to the casing. The Examiner believes that Batchelder teaches: "a rotary pump with a casing 31 formed as a unit with a circuit board housing portion 52 which supports a circuit board 58 and an actuator in the form of a motor 12..." therefore what is missing from Blass. Applicant believes that the Examiner has misconstrued the teachings of Batchelder and refers in particular to Figure 8.

Batchelder teaches a bilge pump that includes a PCB (58) and position sensor (42) to trigger operation of the electric motor (12) when a certain amount of water enters the pump. This is effected by including a magnet (46) in a float assembly (48), which rises with the entering water. As the magnet rises, it approaches the floor of the PCB casing, which includes a reed sensor. When the magnet reaches a certain distance, it will trigger the reed sensor and cause the motor to begin pumping.

Firstly, the control casing in Batchelder clearly does not extend over an aperture as is recited in claim 1 as it is meant to be completely enclosed and separated from the water. In

fact, this is entirely the reason for using a magnetic sensor, to keep the float separate from the PCB so as to not contaminate the PCB. Applicant believes that the Examiner has not fully considered each and every limitation in claim 1 as there is clearly no disclosure of placing a sensor at a surface of the enclosure that extends over an aperture as recited in claim 1.

Secondly, the sensor in Batchelder does not sense the rotation of any component but rather senses the water level, by way of a magnet. This is entirely different from what is recited in claim 1 and clearly different from and incompatible with what is shown in Blass. Applicant is unclear as to how or why a person skilled in the art would apply the sensor arrangement in Batchelder to the rotary pump in Blass and to what effect this would achieve. There is no rising water level to detect in Blass and there is no concern of sensing any rotating part in Batchelder.

Finally, and following from above, Batchelder is concerned with a different type of hydraulic machine. Therefore, not only does Batchelder not teach what the Examiner acknowledges is missing from Blass, but there is nothing in either reference that would suggest that features from Blass and Batchelder would be suitable together. Both references are entirely silent in that regard. Moreover, there is no recognition in either reference of the problem addressed in the present application let alone the solution recited in claim 1. As such, Applicant believes that claim 1 clearly and patentably distinguishes over Blass in view of Batchelder.

Claims 2-3, 5-12 and 14-18 being ultimately dependent on claim 1 are believed to be distinguished for at least that reason.

Claims 4 and 13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Blass in view of Batchelder, in further view of Kimura (5,749,710). Applicant respectfully traverses the rejections as follows.

It is believed to have been shown above that claim 1 is patentably distinguished over Blass in view of Batchelder. Since claims 4 and 13 are ultimately dependent on claim 1, Kimura must not only teach what is recited in claims 4 and 13 but also teach what is missing from Blass and Batchelder. Firstly, Applicant believes that the Examiner has misconstrued Kimura. The notched swash plate rotation is not sensed via the magnet illustrated as asserted by the Examiner but rather the magnet is used to strengthen the field set up by the clutch actuator. Swash plate rotation is sensed indirectly via the strengthened clutch electric field being transferred into the bolt system and being picked up via the coil mounted to the bolts. In any event, Kimura also does not teach the control housing as recited in claim 1 and thus does not teach what is missing from Blass and Batchelder. As such, claims 4 and 13 are believed to be distinguished over Blass in view of Batchelder in further view of Kimura.

Claims 19-25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Blass in view of Batchelder, in further view of Tokusmasu (US 6,045,337). Applicant respectfully traverses the rejections as follows. It is believed to have been shown above that claim 1 is patentably distinguished over Blass in view of Batchelder. Since claims 19-25 are ultimately dependent on claim 1, Tokusmasu must not only teach what is recited in claims 19-25 but also teach what is missing from Blass and Batchelder.

Firstly, Applicant believes that the accumulator in Tokusmasu is not a traditional hydraulic accumulator and the term is improperly used in this scenario. Tokusmasu describes a traditional pilot operated valve arrangement and even refers to the alleged piston as a valve element (31). The impetus is to restrict the closing of this valve completely, hence the physical stop illustrated. In any event, Tokusmasu does not teach the control housing recited in claim 1 and thus does not teach what is missing from Blass and Batchelder. As such, claims 19-25 are believed to be distinguished over Blass in view of Batchelder in further view of Tokusmasu.

In view of the foregoing, it is believed that claims 1-25 are clearly and patentably distinguished over the references cited by the Examiner and thus are in condition for allowance.

Applicant requests early reconsideration and allowance of the present application.

Respectfully submitted,

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